

Discussion

Reorganization of the Claims

Claim 1 – 20 have been cancelled in favour of new claims 21 – 40. The new claims and their correlation to prior claims will be summarized in the course of the following discussion.

Amendments to the Disclosure

The Disclosure is being amended to ensure that the language of the claims is reflected in the Disclosure. No new matter has been added. This is reflected by the reference numbers to the claims which have been included in the amendments.

Review of Prior Art

US patent 5,111,628

The primary piece of prior art applied by the Examiner is US patent 5,111,628 issued to: Desjoyaux; J. L., Desjoyaux; P. L., and Desjoyaux Epouse Jandros; C., all of La Fouillouse, France. This patent is related to the swimming pool products presently produced by Le Groupe Desjoyaux, a corporation of France with offices at La Fouillouse, Cedex, France. The web site for this company may be viewed at:

<http://www.desjoyaux.fr/>

<http://www.desjoyaux.eu/>

Delivered with this Response is a 43 page brochure entitled: "Much more than just a pool..." prepared by Le Groupe Desjoyaux to describe their pools. Also delivered herewith are a brochure entitled "Desjoyaux pools - Make your family's dreams come true" and a DVD both prepared and obtained from Distribution Desjoyaux Inc., a Quebec company having a business address at 888, Trans-Canada Street, Longueuil in the Province of Québec, Canada. These references depict the installation process for Desjoyaux pools.

Le Groupe Desjoyaux supplies Distribution Desjoyaux Inc with plastic panels to form the pool wall and parts to provide an upper trough and vertical tubes, which are called

"chimneys". These parts are assembled on the Distribution Desjoyaux premises to form preassembled plastic walls of 8 feet or so in lengths which are stiffened with steel tubes. These assembled wall portions are then shipped to pool installers when ordered.

At the job site, installers erect the pre-assembled walls in an excavated opening in the ground, joining the panel segments to provide a pool wall with the wall's smooth face directed inwardly and the upper trough and "chimneys" directed outwardly. Concrete is then poured into the upper trough and allowed to descend down the chimneys to flood out along the bottom of the pool wall, open to the air in the upward direction. This can be seen at pages 9 and 33 of the Groupe Desjoyaux brochure and in the DVD which depicts the installation process. The pouring of concrete is particularly depicted in the Installation chapter, between minutes 3:35 and 4:00, and between minutes 4:45 and 4:50 (on the DVD timer).

The concrete that floods out at the bottom of the pool wall is not contained by any form attached to the panels. It is allowed to accumulate along the base of the pool wall on the outer side facing the earthen sidewall until a continuous band of concrete extends around the base of the pool wall. The top of the concrete along the base of the panels is exposed to the air and is not enclosed by any covering footing form that is attached to the pool walls. After the concrete is set, earth is back-filled against the outer side of the pool perimeter, burying the continuous band of concrete at the bottom and covering the "chimneys".

On occasion pools may be constructed wherein a portion or all of the pool wall is left exposed and not covered by backfill. In the brochure entitled "Desjoyaux pools - Make your family's dreams come true", on the third panel on the right hand side of the page, an above-ground pool wall portion is depicted. In these circumstances, when the pool wall is erected, a separate form may be built along the base of the pool wall to contain concrete that would otherwise flood out in an irregular manner. The form that is constructed under these circumstances is supported by the ground, independent of the pool wall panels. The tops of the forms are left open and, when they are allowed to fill with concrete, the concrete is trowelled level with the top of the form to form a step which can optionally be covered as shown in the third panel on the right hand side of the brochure. The separate forms are removed and discarded or saved for re-use.

This is the applicant's understanding of how the pool wall panels designed by Le Groupe Desjoyaux are used.

Published US patent application 2006-0277851 - Trevi Pools

It has come to the applicant's attention manner that a company also located in the Montréal region of Québec, called Trevi Pools, having a web site as follows: <http://www.trevi.ca/english/> also produces prefabricated pool walls. Trevi Pools provides a wall panel form system that incorporates forms for forming, on site, a concrete wall panel, an upper trough segment, and vertical chimneys. This product is similar in part to that of the Desjoyaux design except that in the Trevi design a concrete wall panel is cast on site, which is not a feature of Desjoyaux pools. A version of the Trevi system appears to be depicted in published US patent application 2006-0277851. This application names as inventors Benoit Hudon and Mario Primeau. A Canadian application naming the same inventors and disclosing apparently the same design, CA 2,509,779, has been filed by Trevi Fabrication Inc of Canada.

The design of the Trevi Pool panel according to this patent application provides a widening at the base of each panel. This widening at the base of each chimney is directed outwardly from the central region of the pool enclosure, as shown in Figures 1, 4, 5, 5a and 7 of the application. These outwardly directed protrusions are shown as closed on their ends and do not join up so as to form an enclosure suitable for containing a continuous length of concrete extending along the base of the pool wall between pool panels. Accordingly, these protrusions do not provide around the perimeter of the pool, along the base of the pool wall, a continuous, interconnected, covering for casting a continuous footing for the pool wall.

US patent application 2006-0277851 for the Trevi Pool panel was filed June 13, 2005. The present application by Arne Wallin was filed with a PCT filing date of April 10, 2004. Further, this is a PCT filing with a priority date of Apr 17, 2003 based on Canadian application CA 2,425,811. Accordingly, the Trevi/Hudon et al filing is not prior art. However, it is evidence that advances made by another party over the basic Desjoyaux design have not proceeded in the direction of the invention of the present application.

Further art will be discussed as part of the review of the Examiner's last Office action.

Examiner's Last Remarks

The Applicant's Agent wishes to thank the Examiner for her efforts invested in the last Office Action. The Agent was having difficulty understanding how a 35 USC 102(b) rejection could be applied. New claims 21 to 40 have been inserted that start with a

Claim 21 that, it is submitted, could not be subject to a 35 USC 102(b) objection nor to a refusal under 35 USC 103. The key features in Claim 21 not found in the applied Desjoyaux reference relate to a footing form described as follows:

b) a footing form to be filled with binder material positioned adjacent to the base end of the wall panel and extending across the width of the wall panel to the respective vertical side edges of the wall panel, the footing form being:

- i) attached to and extending laterally away from the wall portion on the flange side of the wall panel so as to remain with the wall portion in such orientation once the footing volume has been filled with binder material,
- ii) positioned beneath and extending laterally from the flange form to provide a footing volume whereby the footing form can be filled with binder material that serves as a footing along the base end of the panel,
- iii) downwardly open but upwardly closed for covering and confining such binder material between the footing form, the flange side of the wall portion and the supporting surface when the wall panel is installed on such supporting surface,
- iv) open at the ends of the footing form that are adjacent to the respective vertical side edges of the wall panel, and

wherein the flange and footing volumes are interconnected to provide continuous, enclosed volumes that serve to contain binder material poured into the footing form through the vertical flange form, and

wherein, when two such preformed wall panel are positioned next to each other along their vertical side edges, the adjacent openings at the ends of the enclosing footing form will permit a continuous, interconnected, covered, footing volume to extend between two adjacent wall panels.

In particular the underlined features are for emphasis as to the structural distinctions being made, but the entire claim is to be considered in assessing whether it addresses novel and patentable subject matter over the prior art.

The Examiner hi-lighted most helpfully Figure 3 of the Desjoyaux reference to indicate her interpretation of a "footing form" present in the prior art. But this reference does not show the features listed above. Claim 21 therefore distinguishes over Desjoyaux.

The Desjoyaux reference is for a pool wall and is not, therefore, intended to carry a significant vertical load. The footing cover of the invention, besides conserving concrete when used in a pool wall application, enhances the load bearing capacity of a

wall based on the design of the present invention. The footing form is: "attached tothe flange side of the wall panel so as to remain with the wall portion in such orientation once the footing volume has been filled with binder material". By this feature resistance is provided against the poured footing sliding upwardly adjacent to the wall portion when the wall panel is pressed downwardly by a vertical load. A kind of composite action is provided to resist a load. This feature is not present in the Desjoyaux design.

Examiner's prior rejections

The Examiner rejected claims 1-6, 13 and 15 under 35 USC 102(b) on the basis of Desjoyaux. The correspondence of these claims to the new claims is as follows:

21	1	basic wall panel with footing form
22	new	multiple flange forms on the panel
23	2	trough form mounted along the top end of the panel
24	3	wall-to-rebar couplings for rebar rod in flange and footing volumes
28	13	form edges are embedded and are interrupted from a straight line
30	15	building wall of multiple panels

Claim 21 has been amended to distinguish over Desjoyaux on the bases set-out above. All of the claims depend on claim 21 and therefore distinguish over Desjoyaux for that reason as well as by reason of the further features that they add.

In respect of claim 28 the applicant has not been able to locate as the Examiner had suggested with respect to claim 13 the description in columns 3-4 of Desjoyaux of: "flange and footing forms ... of sheet material which is fastened by embedment into the panel wall portion of edges of the sheet material which edges are interrupted from alignment in a straight line".

In respect of claim 24 the applicant has not been able to locate in Desjoyaux any reference to: "reinforcing couplings seated in and protruding from said wall portion into any one or more of said flange or footing volumes to position and support reinforcing rod...". Claim 24 addresses not the presence of reinforcing rod but reinforcing rod positioned within one or more of said one or more flange or footing volumes and supported by the reinforcing coupling means that extend from the wall portion.

The Examiner cited House in combination with Desjoyaux et al to reject claims 1, 12 15 and 17 under 35 USC 103. The correspondence of these claims is as follows:

- | | | |
|----|----|---|
| 21 | 1 | basic wall panel with footing form |
| 30 | 15 | building wall of multiple panels |
| 33 | 12 | half flanges overlap at their outside edges |
| 34 | 17 | corner piece |

With respect to claim 21, as indicated above, the footing cover of the invention, besides conserving concrete when used in a pool wall application, enhances the load bearing capacity of a wall based on the design of the present invention. This is a distinction which makes a difference. This is not a form that is removed after concrete is poured as in US 6,332,599 to Spartz. The Wallin footing form is: "attached ... so as to remain with the wall portion in the same orientation once the footing volume has been filled with binder material". The form is part of the final structure. This is not an obvious variation over Desjoyaux.

Claims 30, 33 and 34 all depend on claim 21 and therefor are similarly non-obvious for that reason as well as by reason of the further features that they add.

In respect of claim 33 it is the outer edges of at least one of said half-flange forms that has at least a portion of its surface extending to overlap and permit coupling to an adjacent half flange form when two of said wall panels with half flange forms are abutted together. The reinforcing bar identified by the Examiner in House are all embedded in concrete. They do not relate to the outside surface of a form. The Examiner referred in respect of claim 12 to the over lap of form edges shown in Desjoyaux at Figure 11 as item 2e.. But such overlapping does not: "permit coupling to an adjacent half flange form when two of said wall panels with half flange forms are abutted together, thereby defining a single, common flange form volume". The overlap in Figure 11 does not suggest the arrangement in claim 33.

In respect of claim 34 House does show a corner piece. But House does not suggest that: "the corner piece, vertical side edges of adjacent wall panels, vertical half-forms and joiner piece define a vertical cavity that communicates with the footing volume for receiving binder material" as provided in claim 34. House does not contemplate the presence of a footing form nor even a continuous footing underlying his wall. The presence of a vertical cavity that communicates with the footing volume provides a substantial benefit in allowing a building wall based thereon to have a continuous frame support at the corners that will distribute load over an extended footing that underlies the walls meeting at the corner.

The Examiner cited House in combination with Desjoyaux et al and US patents 6,332,589 and 6,244,005 to reject claim 16 under 35 USC 103. The corresponding claim herein is as follows:

32 16 continuous reinforcing rod between panels supported by panel couplings

Claim 32 is distinguished from claim 16 and the applied art by the feature that "reinforcing couplings seated in and protruding from said wall portion into any one or more of said flange or footing volumes to position and support reinforcing rod...". As referenced above for claim 24, Claim 32 addresses not the mere presence of reinforcing rod but reinforcing rod positioned within one or more of said one or more flange or footing volumes and supported by the reinforcing coupling means that extend from the panel wall portion. This is in the context of a preformed wall portion that serves as a "jig" to align the forms for filling with binder material. In this context, the stipulated combination is not "obvious".

The Examiner observed that claims 8-11, 14 and 20, properly restructured addressed allowable subject matter and allowed claims 18-19. The corresponding claims herein are as follows:

25 8 outer edge of the footing form is shaped to press on the ground
26 9, 10 outer edge of the footing form is bent in – depending on claim 21
27 9, 10 outer edge of the footing form is bent in – depending on claim 25
29 14 beam post support
35 18 positioning plate under corner piece
36 20 multi-tiered walls

All these claims correspond in substance while not necessarily exactly.

Conclusion

The claims have been revised and the Examiner's observations and rejections have been addressed. It is believed that this application addresses patentable subject matter and is in form for Allowance. Reconsideration and a favorable ruling that will allow this application to advance to grant is therefor requested.

After the last Final Action the Examiner and the applicant's Agent held a telephone conference call which was useful. The Examiner observed in that call that an

applicant is not entitled to hold an interview with an Examiner after a Final action. If this Response does not place this application in condition for Allowance, allowing for a possible Examiner-initiated telephone exchange, then the applicant requests that he be permitted to attend a personal interview with the Examiner before any Final action issues. This is because this application is very important to the applicant – inventor.

Respectfully submitted,



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